ABSTRACT OF THE DISCLOSURE

Computer-implemented methods that include correlating a backside defect with a frontside defect detected on a specimen are provided. The defects are correlated if a portion of the backside defect on the backside of the specimen is opposite to a portion of the frontside defect on the frontside of the specimen. In particular, the defects are correlated if the portion of the backside defect is aligned with the portion of the frontside defect along an axis perpendicular to the frontside and the backside of the specimen. The method may also include altering a parameter of a process tool in response to the backside defect to reduce frontside defects on additional specimen processed in the process tool. Computer-implemented methods for analyzing data representing spatial characteristics of backside defects detected on a specimen to classify the backside defects are also provided. Analyzing the data may include spatial signature analysis of the data.